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Lab Laurels
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VA aerodynamics team recognized by AFOSR

by Melissa Kamaka, Air Vehicles Directorate

WRIGHT-PATTERSON AIR FORCE BASE, Ohio — The Multidisciplinary Computational Aerodynamics Team, led by Dr. Miguel Visbal, and composed of team members, Dr. Donald Rizzetta, Dr. Raymond Gordnier, Dr. Reid Melville, Dr. Scott Sherer, and Dr. Phil Morgan, whose results have been of such outstanding merit, has been recognized as an Air Force Office of Scientific Research Star Team for the years 2002 thru 2004.

Pictured are front row (l to r) Don Rizzetta, Miguel Visbal and Scott Sherer. Back row - Phil Morgan, Reid Melville, Ray Gordnier.

Visbal has been a recognized leader in the area of computational fluid dynamics (CFD) and high-performance computing for many years. He and his team, are developing modeling and simulation technology to aid in the evolution of new concepts for unmanned combat air vehicles and other Air Force Systems, and have recently made a number of significant advances in the CFD field. These advances, which allow the accurate computation of high-speed, turbulent flows around complex geometrical shapes, will vastly improve the design of aerospace vehicles of the future.

The high-fidelity computational tools developed by the team are currently being transitioned to the multidisciplinary simulation of complex phenomena relevant to Air Force systems. These include weapon-bay cavity acoustics, flow control on wings and turbines, high-angle-of-attack aerodynamics, and flutter and limit-cycle-oscillations of F-16 aircraft and UAV configurations. **@**